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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,492	10/15/2004	Matthias Muth	DE02 0097 US	4584
65913	7590	09/26/2008	EXAMINER	
NXP, B.V. NXP INTELLECTUAL PROPERTY DEPARTMENT M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			AMRANY, ADI	
			ART UNIT	PAPER NUMBER
			2836	
			NOTIFICATION DATE	DELIVERY MODE
			09/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/511,492	Applicant(s) MUTH, MATTHIAS	
	Examiner ADI AMRANY	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed August 20, 2008 have been fully considered but they are not persuasive. Regarding the drawings, the figures show empty boxes. Without labeling, it is impossible to understand what is displayed without consulting the specification. If the drawings included shapes (a car outline) or components (resistors, diodes, etc.) that were easily identifiable, then the drawings would not have been objected to. Currently, the drawings appear as boxes with lines attaching them to other boxes. Applicant's assistance is requested in amending the drawings to allow future readers to understand the subject matter of the design, specifically as one of these figures will appear on the front page on a patent should this case issue.

Regarding the art rejection of claims 1 and 5, Tamai discloses that the secondary battery (13) is charged from the first battery (12). Thus, the Tamai logic circuit (110) is powered by the primary DC input.

Lastly, "idle state" is not defined in the claim. There are many possible interpretations for "idle" in the automotive field, including: 1) the vehicle is stationary, and 2) the vehicle's engine is idle (which is defined as the lowest speed an engine can cycle without stalling). It appears that applicant is interpreting an idle vehicle as one that is stationary and off (before ignition). The status of the engine (on/off), however, has little relevance to the position of the vehicle (parked/moving). When a vehicle ignition is turned on, it is still motionless (stationary = idle). The vehicle would not begin

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to move until after it is put into gear (drive, reverse, etc.). Similarly, a vehicle can be left in neutral with the ignition off and still move by rolling down a hill.

Drawings

2. The drawings are objected to because the figures contain empty boxes. As discussed above, applicant is requested to insert labels ("DC/DC" "control means" etc) in or near the boxes in order to allow a reader to identify each component and better understand the operation of the device. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art ("APA", specification, page 1) in view of Tamai (US 6,580,180).

With respect to claim 1, APA discloses a circuit arrangement for a vehicle for generating at least two DC output voltages from at least one DC input voltage, wherein the DC output voltages are smaller than the DC input voltage, the circuit arrangement comprising: a voltage regulator for generating the DC output voltages from a voltage regulator input; a DC/DC converter for converting the DC input voltage to a lower voltage (page 1, lines 7-19). APA states that it is known from the state of the art to arrange a DC/DC converter preceding "such circuit arrangements." The circuit arrangements refers to page 1, lines 3-4, where APA states that voltage regulators are provided to generate Dc output voltages (plural).

APA does not expressly disclose the DC/DC converter can be switched on and off. Tamai discloses a circuit arrangement for a vehicle (fig 1; col. 4-5) for generating at least two DC output voltages (14n), wherein the DC input voltage (outputs of 10, 12) is applied to a DC/DC converter (120; col. 5, lines 37-46) which can be switched on or off by a logic circuit (110; col. 5, lines 19-22) and supplies a lower voltage than the DC

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input voltage (12v from 42v), wherein the logic circuit switches the DC/DC converter off in response to an idle state of the vehicle in which circuit elements are switched off (col. 6, lines 21-25), the circuit elements (14n) being supplied by the DC output voltages, the logic circuit being powered by the DC input voltage (from battery 12 via battery 13) when the vehicle is in the idle state.

Tamai discloses that the logic circuit is activated by turning on ignition. One skilled in the art would understand that when a vehicle is first turned on, it is not moving (idle). APA and Tamai are analogous because they are from the same field of endeavor, namely vehicle power distribution systems. At the time of the invention by applicant, it would have been obvious to one skilled in the art to combine the step-down converter arrangement disclosed in APA with the on/off logic and DC/DC converter disclosed in Tamai in order to reduce power consumption by turning off the converter when it is not needed (Tamai, col. 2, namely lines 56-63).

With respect to claim 2, Tamai discloses that the DC input voltage (outputs of 10, 12) is used for energy supply of the arrangement (11; col. 4, lines 48-53).

With respect to claims 3-4, it would have been obvious to one skilled in the art to arrange any of the APA or Tamai components on an integrated circuit, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Placing the APA and Tamai components on an integrated circuit, as opposed to separate circuit boards, does not appear to affect their overall

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performance. Placing the components in one location is an aesthetic design choice in order to minimize space and clutter.

With respect to claim 5, APA and Tamai disclose the recited integrated circuit, as discussed above in the rejections of claims 1 and 3.

With respect to claim 6, Tamai disclose the DC input voltage has a value of approximately 42 volts (col. 4, lines 48-53) and the voltage supplied by the DC/DC converter has a value of approximately 12 volts (col. 4, lines 54-59). Further, it would be obvious to one skilled in the art to select any suitable input/output voltages for the DC/DC converter based on the end use of the device, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADI AMRANY whose telephone number is (571)272-0415. The examiner can normally be reached on Mon-Thurs, from 10am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

AA